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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Martin J. Steffensmeier

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04/12/2006

Rockwell Collins Inc
Intellectual Property Department
400 Collins Road NE M/S 124-323
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EXAMINER

NGUYEN, KEVIN M

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 04/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/648,830	Applicant(s) STEFFENSMEIER ET AL.	
	Examiner Kevin M. Nguyen	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Response to applicant's amendment/argument filed on 02/06/2006. Independent claims 1 and 15 are amended. Claims 1-20 are currently pending in the application. Applicant's arguments see pages 7-11, filed 02/06/2006, with respect to the amendment are not persuasive, and necessitated the new grounds of rejection presented in this Office action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5-10, 12-17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henderson (newly cited, US 4,127,796) in view of Cappels (newly cited, US 5,821,917).

4. As to claim 1, Henderson teaches a method of reducing luminance decay of emissive elements in a matrix addressed emissive display device (CRT display anti-burn circuit, see the title), the method comprising:

generating control data [13,16, Fig. 1] corresponding to a static image [a stationary image, abstract, line 3] to be displayed [on a CRT 1] and generating drive signals [21, 22] as a function of the control data [13,16] in a drive circuit [10,12 see col.

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2, line 27 through col. 3, line 2], wherein the control data defines an image origin [23, Fig. 2] of the static image with respect to a display origin [23, Fig. 2, col. 3, lines 3-22];

providing the drive signals [21,22] to the matrix [Fig. 3] to thereby energize the corresponding emissive display elements [the CRT 1] of the matrix in order to display the static image on the matrix [the stationary image, abstract, line 3, Fig. 3];

altering the control data [15,18], substantially continuously, such that the drive signals [21,22] are substantially continuously altered to thereby substantially continuously move the static image [the stationary image is deviated at a sufficiently slow rate, see Figs. 2 and 3] on the matrix in a manner which is substantially undetectable to viewers of the display device [and over a sufficiently small distance that said deviation is not perceptible to the human eye, see claim 8], wherein the control data [15,18] is altered by rendering the image original [28] of the static image with respect to the display original [28, see Figs. 2 and 3, col. 3, lines 3-58].

Accordingly, Henderson teaches all of the claimed limitation, except for the method comprising: generating/altering in a graphic engine or processor control data.

However, Cappels teaches a related system and method of compensating for the effects of aging of the phosphors upon color accuracy in a CRT which comprises graphics engine, e.g., a host processor 10 and an internal processor 23 generating/altering control image data (see Fig. 2, col. 4, lines 1-27).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the host processor 10 and internal processor 23 (corresponding to the graphics engine as claimed) as taught by Cappels in the

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Henderson's CRT in order to achieve the benefit of provide an improved a system and method is needed to compensate accurately for degradation of color in cathode ray tubes due to phosphor and faceplate aging (see Cappels, col. 2, lines 48-50).

5. The limitation of claim 8 are similar to those of claim 1, though in apparatus form, therefore the rejection of claim 8 will be treated using the same rationale as claim 1.

6. As to claim 5, Henderson teaches wherein generating control data corresponding to the static image to be displayed on the matrix of individually addressable emissive display elements further comprises:

defining the image origin [28] of the static image; assigning the image origin for the static image to an emissive display element in the matrix [Fig. 3];

generating the control data for each emissive display element in the matrix based upon its respective position relative to the emissive display element to which the image origin [28] has been assigned [see claim 1 above].

7. As to claims 6 and 13, Henderson teaches wherein assigning the image origin further comprises initially assigning the image origin [28, Fig. 3] for the static image [the stationary image, abstract, line 3] to the display origin [28, Fig. 3].

8. As to claims 7 and 14, Henderson teaches wherein altering the control data further comprises reassigning the image origin [28, Fig. 3] for the static image [the stationary image, abstract, line 3] to a different emissive display element in the matrix such that the image origin moves relative to the display origin [the stationary image is deviated at a sufficiently slow rate, and over a sufficiently small distance that said deviation, see Figs. 2 and 3, col. 3, lines 3-58].

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9. As to claim 15, Henderson teaches a matrix addressed emissive display device [a CRT 1], comprising:

a matrix of individually addressable emissive display element (the CRT, fig. 1);
graphics means [inherently] for controlling the matrix to display a static image [a stationary image, abstract, line 3] on the matrix [Fig. 3] and to substantially continuously move the static image on the matrix in a manner which is substantially undetectable to the viewers of the display device [the stationary image is deviated at a sufficiently slow rate, and over a sufficiently small distance that said deviation is not perceptible to the human eye, see Figs. 2 and 3, claim 8], wherein the graphic means includes a graphic engine means [inherently] for generating control data [13, 16] associated with the static image [the stationary image, abstract, line 3], the image having an image origin [28, Fig. 3] and wherein the graphics means includes a display driver means [10, 12, Fig. 1] for driving the display elements [the CRT] in response to the graphics engine means, wherein the graphic engine means redefines the image origin [28] to move the static image [the stationary image is deviated at a sufficiently slow rate, and over a sufficiently small distance that said deviation, see Figs. 2 and 3, col. 3, lines 3-58].

Accordingly, Henderson teaches all of the claimed limitation, except for the CRT comprising: a graphic engine or processor generating/altering control data.

However, Cappels teaches a related system and method of compensating for the effects of aging of the phosphors upon color accuracy in a CRT which comprises graphics engine, e.g., a host processor (10) and an internal processor (23) generating/altering control image data (see Fig. 2, col. 4, lines 1-27).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the host processor 10 and internal processor 23 (corresponding to the graphics engine as claimed) as taught by Cappels in the Henderson's CRT in order to achieve the benefit of provide an improved a system and method is needed to compensate accurately for degradation of color in cathode ray tubes due to phosphor and faceplate aging (see Cappels, col. 2, lines 48-50).

10. As to claims 12 and 19, the combination of Henderson and Cappels teaches wherein graphics means is adapted to define the image origin [28, Fig. 3] for the static image [the stationary image, abstract, line 3] and to assign the image origin [28] for the static image to an emissive display element in the matrix, the graphics further adapted to generate control data [13, 16] for each emissive display element in the matrix [the CRT 1] based on its respective position relative to the emissive display element to which the image origin has been assigned [see claim 15 above].

11. Claim 20 shares the same limitations as those of claim 19 and therefore the rationale for rejection will be the same.

12. As to claims 2, 3, 9, 10, 16 and 17, Henderson teaches all of the claimed limitation of claims 1, 8 and 15, except wherein the matrix is a plasma display device and light emitting diodes.

However, Cappels further teaches other display devices such as plasma displays and light-emitting diodes having various signal-receiving electrodes may be used in place of CRTs (col. 6, lines 38-45).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement other application display devices, e.g., the plasma display devices and light emitting diodes as taught by Cappels for the intended use of CRT of Henderson, because this would provide an improved a system and method is needed to compensate accurately for degradation of color in cathode ray tubes due to phosphor and faceplate aging (see Cappels, col. 2, lines 48-50).

13. Claims 4, 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henderson in view of Cappels, and further in view of Marflak et al (previously cited, US 6,369,851) hereinafter Marflak.

As to claims 4, 11 and 18, the combination of Henderson and Cappels teaches all of the claimed limitation of claims 1, 8 and 15, except wherein a field effect display matrix.

However, Marflak teaches a flat cathode ray tube 308 (see fig. 3) corresponding to a field effect display matrix.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement other application display devices, e.g., flat cathode ray tube corresponding to the field effect display matrix as taught by Marflak for the intended use of CRT of Henderson and Cappels, because this would minimize burn lines on the field effect display matrix (see the title of Marflak).

Response to Arguments

14. Applicant's arguments filed 02/06/2006 have been fully considered but they are not persuasive. Applicant argues features in the amendment that are newly recited.

Thus, new grounds of rejection have been moot. See rejections above. For these reasons, the rejections have been maintained.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN M. NGUYEN whose telephone number is 571-272-7697. The examiner can normally be reached on MON-THU from 8:00-6:00 pm.


If attempts to reach the examiner by telephone are unsuccessful, a supervisor RICHARD A. HJERPE can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8000.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the Patent Application Information Retrieval system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Patent Examiner
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April 6, 2006



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